

UNITED STATES PATENT AND TRADEMARK OFFICE

Examiner: Thomas, Lucy M.

Art Unit: 2836

Docket No. 3765

In re:

Applicant: SCHMIEDERER, C.

Serial No.: 10/591,890

Filed: September 7, 2006

BRIEF ON APPEAL

April 8, 2010

Commissioner for Patents
P O Box 1450
Alexandria, VA 22313-1450

This is a Brief on Appeal from the final rejection of Claims 1-3, 5
and 7-12 by the Examiner.

REAL PARTY IN INTEREST

The real party in interest in this application is Robert Bosch GmbH having a business address of Postfach 30 02 20, D-70442 Stuttgart, Germany.

RELATED APPEALS AND INTERFERENCES

There are no prior and pending appeals, interferences or judicial proceedings known to appellant, the appellant's legal representative, or assignee which may be related to, directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

STATUS OF CLAIMS

The present application was filed originally with Claims 1-12.

During the prosecution of the application, Claims 4 and 6 have been cancelled.

Now the application contains Claims 1-3, 5 and 7-12.

All claims presently contained in the application are rejected by the Examiner.

STATUS OF AMENDMENTS

A Final Office Action was issued in this application on January 14, 2010.

After the final Office Action, no Amendments have been filed by the Appellants.

SUMMARY OF CLAIMED SUBJECT MATTER

The invention disclosed in the present application is an interference suppressor (10) for suppressing high-frequency interference emissions of a direct current motor (26) that is drivable in a plurality of stapes and/or directions.

The interference suppressor has a plurality of capacitors (16) located on the first side (12) of a printed board (14) and a plurality of first conductor tracks (18) located on the first side (12) of the printed circuit board (14) for putting various capacitors (16) into contact with a ground terminal (20).

A first terminal (22) and at least one further terminal (24) for individual stages of the direct current motor (26) are provided.

This is disclosed in lines 12-19 on page 4 of the specification and shown in Figures 1, 3 and 4.

At least one second terminal (24) is put into contact with a first connecting line (48) for the first stage and at least one second connection line (50) for the at least one second stage of the direct current motor (26) as disclosed in last six lines on page 6 and in first three lines on page 7 of the specification and shown in Figure 3.

The ground face (34) is located on a second side (32) diametrically opposite the first side (12) of the printed circuit board (14) as explained in lines 4 and 5 on page 7 of the specification and shown in Figure 3. The first connection line (48) and the at least one second connection line (50) are fed through in insulated fashion relative to the ground face (34) as explained in last four lines page 6 and first line on page 7 of the specification and shown in Figure 3.

The ground face is electrically connected via through-plate holes (30) embodied as via-holes (36) to the ground terminals (20) of the capacitors (16) on the first side (12) of the printed circuit board (14) as explained in lines 9-13 on page 5 of the specification and shown in Figures 1 and 2.

The via-holes (36) are electrically conductive sleeves which are filled with a highly conductive metal as explained in lines 10-12 on page of the specification and shown in Figures 1 and 2.

GROUND OF REJECTION TO BE REVIEWED ON APPEAL

There are several grounds of rejections of the claims to be reviewed on appeal.

First ground for rejection to be reviewed on appeal is whether Claims 1, 5, 7-8 and 12 are rejectable under 35 USC 103(a) as being unpatentable over U.S. patent application publication to DeDaran in view of the U.S. patent application publication to Anthony and U.S. patent to Mizumoto.

Second ground for rejection to be reviewed on appeal is whether Claims 9-10 are rejectable under 35 USC 103 as above and further in view of the French patent to Migne.

Third ground for rejection to be reviewed on appeal is whether Claim 11 is rejectable as above, and further in view of the U.S. patent to Honl.

ARGUMENT

Arguments presented in regard to the first ground of rejection to be reviewed on appeal.

The U.S. patent application publication to DeDaran discloses a filtering and interference suppressing device for an electric motor. This reference does not disclose a ground face electrically connected via through-plated holes embodied as via-holes to ground terminals of capacitors on a first side of printed circuit board, wherein the via-holes are electrically conductive sleeves which are filled with a highly conductive metal.

Thus, it is believed to be clear that this reference does not teach the new features of the present invention as defined in Claim 1.

The U.S. patent application publication to Anthony discloses a component carrier. The component carrier disclosed in this reference also does not have a ground face electrically connected via through-plated holes embodied as via-holes to ground terminals of capacitors on a first side of printed circuit board, wherein the via-holes are electrically conductive sleeves which are filled with a highly conductive metal.

The U.S. patent to Mizumoto discloses an electrical connection substrate having a through-hole for connecting a chip to an opposite surface of

the substrate. The electrical connection substrate in this reference also does not have a ground face electrically connected via through-plated holes embodied as via-holes to ground terminals of capacitors on a first side of printed circuit board, wherein the via-holes are electrically conductive sleeves which are filled with a highly conductive metal.

The Examiner rejected Claim 1 over the combination of the above discussed references. None of the above analyzed three references disclose devices which include the new features of the present invention as defined in Claim 1. It would not be sufficient to combine the references, and even if combined, a hypothetical device produced from such a combination would not include the above specified features of the present invention as defined in Claim 1.

In order to arrive at the present invention from the references taken singly or in combination with one another, the references have to be fundamentally modified by including into them the new features of the present invention which are defined in Claim 1 and which were first proposed by the Appellants. However, it is known that in order to arrive at a claimed invention, by modifying the references the cited art must itself contain a suggestion for such a modification.

This principle has been consistently upheld by the U.S. Court of Customs and Patent Appeals which, for example, held in its decision In Re Randol and Redford (165 USPQ 586) that:

Prior patents are references only for what they clearly disclose or suggest, it is not a proper use of a patent as a reference to modify its structure to one which prior art references do not suggest.

Definitely the references do not contain any hint, suggestion or motivation for such modifications.

Claim 1 cannot be considered as obvious over the combination of the references.

Claims 2-3, 5, 7 and 8 and 12 depend on Claim 1, they share its allowable features, and therefore they should be allowed.

Arguments presented in regard to second ground of rejection to be reviewed on appeal.

Rejected Claims 9 and 10 depend on Claim 1 and share its allowable features. Therefore, these claims should be allowed as well.

Arguments presented in regard to third ground of rejection to be
reviewed on appeal.

Claim 11 depends on Claim 1, it shares its allowable features, and therefore it should be allowed as well.

It is therefore respectfully requested to reverse the Examiners rejection of the claims and to allow the present application with all the claims currently on file.

Respectfully submitted,
/Michael J. Striker/

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CLAIM APPENDIX

1. An interference suppressor (10) for suppressing high-frequency interference emissions of a direct current motor (26) that is drivable in a plurality of stages and/or directions, having a plurality of capacitors (16) located on a first side (12) of a printed circuit board (14) and having a plurality of first conductor tracks (18), located on the first side (12) of the printed circuit board (14), for putting the various capacitors (16) into contact with a ground terminal (20), and having a first terminal (22) and at least one further terminal (24) for the individual stages of the direct current motor (26), the first terminal (22) and the at least one second terminal (24) being put into contact with a first connection line (48) for the first stage and at least one second connection line (50) for the at least one second stage of the direct current motor (26), wherein a ground face (34) is located on a second side (32), diametrically opposite the first side (12), of the printed circuit board (14), and the first connection line (48) and the at least one second connection line (50) are fed through in insulated fashion relative to the ground face (34), and wherein the ground face (34) is electrically connected via through-plated holes (30) embodied as via-holes (36) to the ground terminals (20) of the capacitors (16) on the first side (12) of the printed circuit board (14), wherein the via-holes (36) are electrically conductive sleeves which are filled with a highly conductive metal.

2. The interference suppressor (10) as defined by claim 1, wherein at least one varistor (38) and/or at least one capacitor (40) is located on the first side (12) of the printed circuit board (14) and is connected to the first terminal (22) and the at least one second terminal (24), respectively, via further conductor tracks (42).

3. The interference suppressor (10) as defined by claim 1, wherein the conductor tracks (18, 42) are located on the first side (12) of the printed circuit board (14) symmetrically about an axis (47) of the printed circuit board (14).

Claim 4 cancelled.

5. The interference suppressor (10) as defined by claim 1, wherein the capacitors (16) are embodied as SMD ceramic capacitors (28).

Claim 6 cancelled.

7. The interference suppressor (10) as defined by claim 1, wherein a shielding housing (54), surrounding the interference suppressor (10), is connected electrically conductively to the ground face (34).

8. The interference suppressor (10) as defined by claim 7, wherein the first connection line (48) and the at least one second connection line (50) are fed through the shielding housing (54).

9. The interference suppressor (10) as defined by claim 7, wherein the shielding housing (54) is connected electrically conductively to a motor housing (58) of the direct current motor (26).

10. The interference suppressor (10) as defined by claim 9, wherein the shielding housing (54) and the motor housing (58) of the direct current motor (26) are connected to one another via a plurality of contact points (56).

11. The interference suppressor (10) as defined by claim 1, wherein at defined points (44), the conductor tracks (18, 42) have tapered portions (46) for a short-circuit guard.

12. The interference suppressor (10) as defined claim 2, wherein the capacitors (16) and/or the at least one varistor (38) and/or the at least one capacitor (40) is contacted by way of radial or axial connection wires extended to the outside.

EVIDENCE APPENDIX

None.

RELATED PROCEEDINGS APPENDIX

None.